

wherein D_{90} and D_{10} represent the primary particle size that the pigment particles having a primary particle size up to and including D_{90} account for 90% by number of the total pigment particles, and the particle size that the pigment particles having a primary particle size up to and including D_{10} account for 10% by number of the total pigment particles, respectively, in the integral of the primary particle size distribution function $dG = f(D) \times dD$ of the pigment particles in which G is a particle number (%) and D is a primary particle size (nm).

2. (pending) *The pigment dispersion liquid of claim 1, wherein the average primary particle size of the pigment particles is not more than 30 nm.*

3. (amended) *The pigment dispersion liquid of claim 1, further comprising a surfactant.*

4. (amended) *The pigment dispersion liquid of claim 1, wherein the water soluble polymer is adsorbed on the surface of the pigment particles.*

5. (pending) *The pigment dispersion liquid of claim 4, wherein the water soluble polymer has an anionic polar group.*

6. (pending) *The pigment dispersion liquid of claim 1, wherein a surfactant is adsorbed on the surface of the pigment particles.*

7. (pending) *The pigment dispersion liquid of claim 1, wherein the pigment dispersion liquid comprises a pigment derivative having a polar group.*

8. (pending) *The pigment dispersion liquid of claim 1, wherein the dispersion medium is an aqueous medium containing water in an amount of at least 50% by weight.*